REMARKS

The Office Action dated November 19, 2007, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 28, 34, 45, and 49-54 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 55 and 56 have been added. No new matter has been added. Claims 28-56 are respectfully submitted for consideration.

Claims 28-30, 32-34, 38-42, 49, and 52 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,650,288 of Pitt (Pitt). This rejection is respectfully traversed.

Independent claim 28, upon which claims 29-48 are dependent, recites a method that includes estimating visibilities of a plurality of satellites with respect to a mobile station, said plurality of satellites being satellites of a satellite positioning system. The method also includes selecting a group of said plurality of satellites with the best estimated visibilities with respect to the mobile station. The method additionally includes sending, to the mobile station, location assistance information relating to at least said group of satellites, wherein the location assistance information relating to said group of satellites is sent in an order dependent on the estimated visibilities with respect to the mobile station.

Independent claim 49, upon which claims 50 and 51, recites an apparatus that includes an estimator configured to estimate visibilities of a plurality satellites with respect to a mobile station, said satellites being satellites of a satellite positioning system. The apparatus also includes a selector configured to select a group of said plurality of satellites with the best estimated visibilities with respect to the mobile station. The apparatus further includes a transmitter configured to transmit, to a mobile station, location assistance information relating to at least said group of satellites, wherein the location assistance information relating to said group of satellites is sent in an order dependent on the estimated visibilities with respect to the mobile station.

Independent claim 52, upon which claims 53 and 54, recites a system that includes receiving means for receiving a satellite positioning system configured to obtain location assistance information relating to satellites of the satellite positioning system. The system also includes estimating means for estimating visibilities of a plurality of satellites of the satellite positioning system with respect to a mobile station. The system additionally includes selecting means for selecting a group of said plurality of satellites with the best estimated visibilities with respect to the mobile station. The system further includes sending means for sending to the mobile station location assistance information relating to said group of satellites, wherein location information relating to said group of satellites is sent in an order dependent on the estimated visibilities with respect to the mobile station.

Independent claim 55 recites an apparatus that includes a receiver configured to receive a satellite positioning system configured to obtain location assistance information relating to satellites of the satellite positioning system. The apparatus also includes an estimator configured to estimate visibilities of a plurality of satellites of the satellite positioning system with respect to a mobile station. The apparatus additionally includes a selector configured to select a group of said plurality of satellites with the best estimated visibilities with respect to the mobile station. The apparatus further includes a transmitter configured to transmit, to the mobile station, location assistance information relating to said group of satellites, wherein the location assistance information relating to said group of satellites is sent in an order dependent on the estimated visibilities with respect to the mobile station.

Independent claim 56 recites an apparatus that includes estimating means for estimating visibilities of a plurality satellites with respect to a mobile station, said satellites being satellites of a satellite positioning system. The apparatus also includes selecting means for selecting a group of said plurality of satellites with the best estimated visibilities with respect to the mobile station. The apparatus additionally includes transmitting means for transmitting, to a mobile station, location assistance information relating to at least said group of satellites, wherein the location assistance information relating to said group of satellites is sent in an order dependent on the estimated visibilities with respect to the mobile station.

Certain embodiments of the present invention provide a location assistance information to a mobile station in a communications network, and solve the problem of providing data suitable for positioning a mobile station in a fast and accurate way. The aim of such embodiments of the present invention is to provide location assistance information about the best suited satellites to the mobile station.

As will be discussed below, Applicants respectfully submit that Pitt fails to disclose or suggest all of the elements of any of the presently pending claims and consequently fails to provide the critical and unobvious advantages as discussed above.

Pitt generally describes providing information about a list of GPS satellites that are preferred for use by subscribers of a particular region. Information is provided via a wireless network, for instance, a cellular telephone network wherein satellites are within a cone of space. While Pitt does disclose preferred minimum group of satellites, Pitt clearly states that the preferred group relates to the longest dwell time for use by a particular cell site. See column 3 of Pitt. Its dwell time is determined based on a distance between the present location of a particular GPS satellite and the exit edge of the cone of space as well as the rate and speed of the GPS satellite. In accordance with the principles of Pitt, a small group of GPS satellites with the longest dwell times will be selected and most or all others preferably culled a longest dwell time relates to the amount of time that a calculated GPS satellite will be within a respective cone of space above a particular region of users serviced by a particular base station.

Even though Pitt discusses a preferred minimum group, Pitt does not disclose or suggest "estimating visibilities of a plurality of satellites with respect to a mobile station, said plurality of satellites being satellites of a satellite positioning system, and selecting a group of said plurality of satellites with the best estimated visibilities with respect to the mobile station," as recited in claim 28 and similarly recited in claims 49, 52, 55, and 56.

On page 10, paragraph [0004] of the present application, visibility of a satellite with respect to a mobile station is defined as a probability that a mobile station would be able to properly decode the signal received from a positioning system satellite. It may be sufficient to use the elevation angle of a satellite as a measure of visibility. This means that a satellite having a high elevation angle is interpreted to have a good visibility. Alternatively, it is possible to take into account, for example, for some large obstructions in the vicinity of the mobile station when estimating satellite visibility with respect to the mobile station.

It is respectfully noted that dwell time is clearly different to the concept of visibility as employed in the present invention. Thus, Applicants respectfully submit that Pitt does not disclose or suggest "estimating visibilities of a plurality of satellites with respect to a mobile station, said plurality of satellites being satellites of a satellite positioning system, and sending to the mobile station location assistance information relating to at least said group of satellites, wherein location information relating to said group of satellites is sent in an order dependent on the estimated visibilities with respect to the mobile station," as recited in the presently pending claims.

Claims 29, 30, 32-34, and 38-42 are dependent upon claim 28. Accordingly, claims 29, 30, 32-34, and 38-42 should be allowed for at least its dependencies upon claim 28.

Claims 28, 30, 31, 35-37, 42, 43, 47-50, and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Pitt in view of U.S. Patent No. 7,009,948 of Carlsson (Carlsson). The Office Action asserted that Carlsson and Pitt disclose all of the features of claims 28, 30, 31, 35-37, 42, 43, 47-50, and 52. This rejection is respectfully traversed.

Carlsson generally describes a method for performing a position fix by a mobile terminal camped on a packet control channel. The method includes transmitting a request for GPS assistance data via the packet control channel and receiving the requested assistance data via the packet control channel. The method also includes performing the position fix using the received assistance data. Applicants respectfully submit that Carlsson fails to disclose or suggest, at least, "estimating visibilities of a plurality of satellites with respect to a mobile station, said plurality of satellites being satellites of a satellite positioning system, and selecting a group of said plurality of satellites with the best estimated visibilities with respect to the mobile station," as recited in the presently pending claims. Carlsson does not describe "visibility." Carlsson also does not employ the concept of estimating visibilities and ordering priorities of use of satellites with respect to the order of the best visibilities. As discussed above, Pitt does not disclose or suggest this feature, and thus the combination of Pitt and Carlsson fails to disclose or

suggest all of the features of any of the presently pending claims. Thus, it is respectfully requested that the rejection of claims 28, 49, 52, 55, and 56.

Claims 30, 31, 35-37, 42, 43, 47, 48, and 50 are dependent upon claims 28 and 49. Accordingly, claims 30, 31, 35-37, 42, 43, 47, 48, and 50 should be allowed for at least their dependence upon claims 28 and 49.

There is no teaching or suggestion that the system of Pitt should be entirely changed and have prioritization based on visibilities, as found in the present invention, instead of dwell times. Accordingly, there is no motivation for a person of ordinary skill in the art to modify the arrangements disclosed therein in order to arrive at the present invention. Even if the a person of ordinary skill in the art combines the teaching of Pitt with the teaching of Carlsson, a person of ordinary skill in the art would have not arrived at the present invention because there is no motivation, suggestion, or teaching of prioritization based on visibilities.

The cited references does not provide any suggestion or motivation that would lead a person of ordinary skill in the art to arrive at the claimed features of providing location assistance information that is sent in an order dependent on the estimated visibilities with respect to the mobile station. Therefore, it would not have been obvious to a person of ordinary skill in the art to modify the teaching of Pitt with the teaching of Carlsson. It is respectfully requested that the rejection be withdrawn.

Claims 45, 46, 51, 53, and 54 were rejected under 35 U.S.C. 103(a) as being unpatentable over Pitt in view of Carlsson and further in view of U.S. Patent No.

6,720,915 of Sheynblat (Sheynblat). The Office Action asserted that Pitt, Carlsson, and Sheynblat disclose all of the features of claims 45, 46, 51, 53, and 54. This rejection is respectfully traversed.

Sheynblat generally describes obtaining an ordered set of satellite position system (SPS) satellites, in view of mobile SPS receiver, via one or two-way communication with the mobile SPS receiver. The order of the ordered set may be obtained by various methods one of which is by minimizing the geometric dilution of precision (GDOP) satellite. Sheynblat does not cure the deficiencies in Pitt and Carlsson. Applicants respectfully submit that the combination of Sheynblat, Pitt, and Carlsson fails to disclose or suggest all of the features of claims 28, 49, and 52. For example, the combination of Sheynblat, Pitt, and Carlsson does not disclose or suggest, at least, "estimating visibilities of a plurality of satellites with respect to a mobile station, said plurality of satellites being satellites of a satellite positioning system," as recited in the presently pending claims.

Claims 45, 46, 51, 53, and 54 are dependent upon claims 28, 49, and 52. Accordingly, claims 45, 46, 51, 53, and 54 should be allowed for at least their dependence upon claims 28, 49, and 52.

As discussed above, there is no teaching or suggestion that the system of Pitt should be entirely changed and have prioritization based on visibilities, as found in the present invention, instead of dwell times. Accordingly, there is no motivation for a person of ordinary skill in the art to modify the arrangements disclosed therein in order to arrive at the present invention. Even if the a person of ordinary skill in the art combines

the teaching of Pitt with the teaching of Sheynblat, a person of ordinary skill in the art would have not arrived at the present invention because there is no motivation, suggestion, or teaching of prioritization based on visibilities.

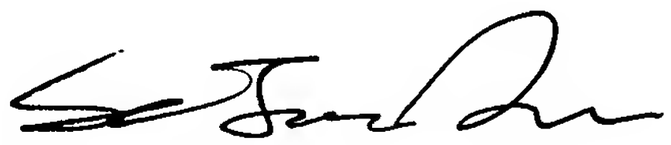
The cited references does not provide any suggestion or motivation that would lead a person of ordinary skill in the art to arrive at the claimed features of providing location assistance information that is sent in an order dependent on the estimated visibilities with respect to the mobile station. Therefore, it would not have been obvious to a person of ordinary skill in the art to modify the teaching of Pitt with the teaching of Sheynblat. It is respectfully requested that the rejection be withdrawn.

For the reasons explained above, it is respectfully submitted that each of claims 28-57 recites subject matter that is neither disclosed nor suggested in the cited art. It is, therefore, respectfully requested that all of claims 28-56 be allowed, and that this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Additional Claim Fee Transmittal
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